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ABSTRACT

A nationwide survey collected opinions of high school teachers to determine if there is a decline in the mathematics achievement of high school students and to determine the causes for this decline. The following conclusions were reported: (1) students have a weak mathematical background when they enter high school and poor study habits in high school compound the problem; (2) minimum academic standards are not set by teachers, yet administrators do not encourage teachers to set minimum academic standards; and (3) students are more frequently absent from class than in the past. (MP)

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CAUSES OF RECENT DECLINE IN THE MATHEMATICS ACHIEVEMENT OF PUBLIC HIGH SCHOOL STUDENTS: A NATIONAL SURVEY OF HIGH SCHOOL MATHEMATICS TEACHERS

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Abstract

Within the past twenty years a considerable effort has been made by public and private sectors for the purposes of improving the quality of mathematics education in the public high schools. However, definite weaknesses in the mathematics achievement of high school students have been pointed out recently by mathematics educators as a result of the recent findings (1973) of the National Assessment of Educational Progress (NAEP), a project funded by the Department of Health, Education, and Welfare (HEW). Also, the average mathematics score on the nationwide Scholastic Aptitude Test (SAT) has been decreasing steadily over the past ten years. A nationwide study was needed to collect opinions at the local high school level by means of a questionnaire to determine if there is a decline in the mathematics achievement of our high school students over the past several years and to determine the causes in the public high school for this decline.

Statement of the Problem

Within the past twenty years a considerable effort has been made by public and private sectors for the purposes of improving the quality of mathematics education in the public high schools. However, definite weaknesses in the mathematics achievement of high school students have been pointed out recently by mathematics educators as a result of the recent findings (1973) of the National Assessment of Educational Progress (NAEP), a project funded by the Department of Health, Education, and Welfare (HEW). Also, the average mathematics score on the nationwide Scholastic Aptitude Test (SAT) has been decreasing steadily over the past ten years. A nationwide study was needed to collect opinions at the local high school level by means of a questionnaire to determine if there is a decline in the mathematics achievement of our high school students over the past several years and to determine the causes in the public high school for this decline.

Definitions

In order to lend credibility to the results of the survey, only experienced and effective high school mathematics teachers were chosen as the sample.

An effective teacher, as judged by the mathematics chairperson, was defined as a person who

1. had positive views of his students and colleagues,
2. was flexible in meeting the demands of the classroom situation, and
3. had a knowledge of his subject matter.[1]

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[1]Don Hamachek, "What Makes A Good Teacher?" in Readings in Secondary School Mathematics, edited by D. Aichele and R. Reys, Prindle, Weber & Schmidt, Inc., Boston, 1971, pp. 338-346.

An experienced teacher was defined as a person who had taught high school mathematics for at least five years in his school.

Five years was a reasonable amount of time to allow the teacher to observe my decline in the average mathematics performance of the students at his school. It was also within this time period that SAT scores had been declining.

Since the chairperson could be a classroom teacher, he was allowed to choose himself as an experienced and effective teacher if he met the criteria listed in the above definitions.

Questionnaire Returns

The return rate of 600 questionnaires was a little over 95% after four mailings. This return rate was considered to be much higher than one would normally expect from mailed questionnaires. As a result of this return rate, the findings of the survey can be generalized with a high degree of confidence to the population.

Summary of Problem and Procedure

Six hundred questionnaires were sent to a stratified random sample of public high school mathematics chairpersons across the United States (50 states). These chairpersons were asked to give the questionnaire to an experienced and effective mathematics teacher. This teacher was then asked to determine whether the mathematics achievement of his public high school students was on the decline and if so to check the reasons to the estimated school-age population of that state in comparison with the total United States estimated school-age population. High schools were drawn randomly using two references, Statistics of the State School Systems 1971-1972 and Patterson's American Education.

The questionnaire and cover letters explaining the nature of the study were developed by the researcher of this study. In order to obtain content validity of the questionnaire and the content of the cover letter, they were reviewed by a group of local high school mathematics teachers, local high school administrators and counselors, graduate students in mathematics education, and professors of education at the University of South Carolina.

The questionnaire and cover letter were sent to the chairperson of each high school asking him to give the questionnaire and a cover letter to an experienced and effective high school mathematics teacher to complete. If the teacher believed there was a decline, he was asked to check those statements he believed best reflected the causes of the decline in the mathematics achievement of students in his school. He was also asked to choose the five most important causes and rank them in order of importance. There was an option on the questionnaire for teachers to check if they believed there was no mathematics decline in their school. The teacher had five school days to return the questionnaire. Follow-up letters were sent to non-respondents.

The data from the questionnaires were weighted by the number of full time mathematics teachers in each high school. A number factor was used to adjust the total weighted responses per state to insure that these responses were in proportion to each state's portion of the total estimated United States school-age population. The results of the questionnaire were then tallied to form frequency distributions for regional and national levels. An average regional and national ranking was obtained for each ranked statement in the questionnaire.

Findings

Table II is a list of the statements used in the questionnaire and is intended for reference. Tables III, IV, V, VI, and VII each contain two parts. The first part shows the weighted and adjusted frequency of the responses of teachers by category. These responses are ordered from highest to lowest for each of the four categories of the questionnaire, namely, students, teachers, curricula, and administration. The second part shows the weighted and adjusted frequency of the responses of teachers for the entire 37 statements of the questionnaire along with the percentage of the 2,480 weighted number of teachers who checked that statement. Again, the frequency of these responses are ordered from highest to lowest.

After weighting the number of responding teachers by the number of full time mathematics teachers at each high school, the total weighted number of teachers who responded to the questionnaire was 3,147. Twenty-one percent or 667 of the total weighted number of responding teachers believed there had been no decline in the mathematics achievement of students at their school. The regional percentages of the total weighted number of teachers who believed there was no decline were: Northeastern 19%; Southeastern 18%; Central 28%, and Western 19%. The national percentage was 21%. Therefore, 79% or 2,480 of the total weighted number of responding teachers believed that the average mathematics achievement level of the students in their high school had declined over the past five years or more (See Table I).

The findings from the survey can be seen by looking at the frequency of responses for the entire 37 statements of the questionnaire (Table VII). The first 11 statements constitute almost 50% of the total number of weighted responses. In order of descending frequency these statements numbers are:

1. Mathematics students are less likely to discipline themselves to study and to do their homework.
9. Mathematics students enter high school with weaker mathematical backgrounds.
5. Mathematics students are weaker in reading comprehension skills.
11. Teachers of mathematics are less likely to set minimum academic standards for students to pass their course.
3. Mathematics students are absent more frequently from class.
23. Mathematics curricula place less emphasis on basic computational skills.
36. High School administrators seem to be more occupied with non-classroom related activities.
19. Teachers of mathematics place less emphasis on teaching basic computational skills.
32. High school administrators are less likely to encourage teachers to set minimum academic standards in their classroom.
22. Mathematics curricula are more likely to make explanations of problems unclear with too much formal language and abstract symbolism.
33. High school administrators are less consistent in enforcing school policies.

The last 11 statements of the entire 37 statements represent 11% of the total number of weighted responses from the teachers. In order of descending frequency, these statement numbers are:

34. High school administrators are more likely to urge teachers to accept current trends and fads in mathematics education against their better judgment.
17. Teachers of mathematics are less skilled in motivating students.

16. Teachers of mathematics are less likely to prepare their lessons as thoroughly.

29. High school administrators are more restrictive to the amount of curricula and demonstration materials that can be purchased by teachers.

8. Mathematics students have more "fears" of doing mathematics.

24. Mathematics curricula are less appealing and less interesting to students.

12. Teachers of mathematics are more likely to allow students to study topics of their own choosing.

35. High school administrators are more likely to cause teachers and students to become confused by suggesting frequent changes in the curricula.

27. Mathematics curricula are less difficult and less challenging for students.

14. Teachers of mathematics have less knowledge in the teaching methods of mathematics.

15. Teachers of mathematics have less knowledge in the content area of mathematics.

A national average ranking of the five most important causes for decline in the mathematics achievement of high school students is:

1st - Students are less likely to discipline themselves to study and to do their homework.

2nd - Students enter high school with weaker mathematical backgrounds.

3rd - Students are weaker in reading comprehension skills.

4th - Students are absent more frequently from class.

5th - Teachers are less likely to set minimum academic standards for students to pass their course.

Conclusions

An examination of the first 11 statements in the above section suggests possible interrelationships.

Four of the first 5 statements belong in the category of students. Statements 9 and 5 deal with the background knowledge students have when they enter high school. It seems from the survey that many of them have already developed weak mathematical and reading comprehension backgrounds prior to their first day of high school class. These facts are partly confirmed in the Nelson study. In this survey, high school administrators believed that one reason why national test scores had declined was the insufficient time spent in the early grades on the teaching of mathematics.[2] To compound this problem further, students when in high school do little to discipline themselves to study and to do their homework as seen in statement 1. These poor study habits might be also reinforced by statements 11, 32, and 3 which say teachers of mathematics are less likely to set minimum academic standards in their classroom, administrators are less likely to encourage teachers to set minimum academic standards in the classroom, and students are more frequently absent from class. These results are generally substantiated in the survey of high school principals by Nelson which revealed that students and teachers were satisfied with mediocre academic standards.[3]

The current criticism of the modern mathematics program for its failure to stress computational skills and for its degree of abstraction can be further supported by statements 23, 19, and 22. Some of these reasons

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[2]D. J. Nelson, "What's Behind the Test Score Decline?" The National Association of Secondary School Principals, Vol. 60., No. 400, May, 1976. pp. 78-82.

[3]Ibid.

were also seen in the Gallup poll where 51% of the respondents thought that one way of improving the overall quality of public school education was to devote more attention to the teaching of basic skills.[4]

Statement 36 says that high school administrators seem to be less directly involved with the mathematics achievement of the student since most of their time is consumed with non-classroom activities. The Nelson survey of high school principals shows that a vast amount of time was spent on non-instructional problems by principals due to the crime and lack of discipline in the schools. This led to improper supervision of the instructional program by these administrators.[5]

The belief that high school administrators are less consistent in enforcing school policy is seen in statement 33. One example of school policy is the area of student rights and discipline standards. The findings in the Nelson survey claimed that there was less structure or control over the educational process by administrators as a result of court decisions relating to student rights. As a result, inconsistencies in enforcing school policies might arise.[6]

The last 11 statements in Table VII in comparison to the other statements in the questionnaire may be viewed as the least compelling reasons why the mathematics achievement of high school students has declined nationally.

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[4]George H. Gallup, "Eight Annual Gallup Poll of the Public's Attitudes Toward the Public Schools," Phi Delta Kappan, Vol. 58, No. 2, October, 1976, pp. 187-201.

[5]Nelson, op. cit., pp. 78-82.

[6]Ibid.

Some of the conclusions from these statements are interesting for in a few cases they seem to be contradicting other similar survey studies. Such findings suggest the differences in thinking that exist between high school mathematics teachers and a national sample of adults (Gallup poll) or a group of high school administrators in a particular study (Nelson survey). For example, the small number checking statement 17, namely, teachers of mathematics are less skilled in motivating students, seems to be generally contrary to the results in the poll by Gallup where respondents were asked to give reasons for the decline in national test scores. In that study, 52% or a majority of the sample size (n= 1,549) thought that one reason for the decline in national test scores was that students were not being motivated to do well in the classroom.[7]

Statements 16, 14, and 15 deal collectively with the classroom preparation and formal training of mathematics teachers themselves. Administrators in the Nelson survey believed that one reason why SAT scores have declined was due to the lack of proper teacher preparation including collegiate and in-service training for secondary teachers in science and other critical areas.[8] Mathematics can be considered as a critical area since it is included on the Scholastic Aptitude Test (SAT). At first glance, it would seem peculiar that in a survey of high school mathematics teachers asking them for causes for decline in the mathematics achievement of high school students that they would give us the last two reasons their formal training. However, many public school districts across the nation urge their teachers,

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[7]Gallup, op. cit., p. 198.

[8]Nelson, op. cit., pp. 78-82.

through incentives of monetary rewards and promotions, to upgrade their formal education. Some state departments of education even require their teachers to continue their formal education in order to maintain a valid teaching certificate. Many school districts also conduct in-service training sessions for their teachers where subject content matter, methodology, and general education courses are taught. The teachers in this survey consider themselves as well trained in their profession as teachers of at least five years ago.

Recommendations for Teachers, Educators, Curricula Writers, and Administrators

As a result of this study, several recommendations are made that may possibly reverse the trend in the declining mathematics achievement of high school students.

The statement with the most frequent number of responses for the decline in the mathematics achievement of our high school students in that they are less likely to discipline themselves to study and to do their homework. This conclusion tends to be confirmed in a study by Leibert of high school students which indicates that only a small percentage of the pupils polled actually studied.[9] It would seem, then, that teachers must place more pressure on students to study perhaps in the form of weekly or even daily quizzes and homework checks. To help accomplish this task school administrators may wish to establish as school policy the assignment of homework and periodic quizzes by all teachers. Parents should also encourage students to do their homework.

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[9] Robert E. Leibert, "Homework and Study Habits," The Clearing House, Vol. 43, No. 7, March, 1969, pp. 413-416.

Teachers in this survey generally believed that their formal training is the least compelling reason for the national decline in the mathematics achievement of high school students. Therefore, much of the money and energy spent by local school districts in the form of in-service training programs for secondary teachers might be redirected to training programs that would strengthen the mathematical backgrounds of students before they enter high school as well as programs that would improve their reading comprehension skills in mathematics before and during the high school years. This might be done by employing mathematics and reading specialists who would be assigned permanently to elementary and middle schools to assist the teachers in developing and teaching mathematics and reading materials. This specialist would also be responsible for periodically testing the progress of these students to detect their strengths and deficiencies. Special programs can be then implemented to correct deficiencies as well as to challenge the better student. Since some school districts cannot afford to hire mathematics and/or reading specialists, an inexpensive way of improving the mathematics background of students was proposed by Crandall. He conducted a study to show the feasibility of an economical tutorial program that would help underachievers in mathematics in the elementary grades. Twenty students in the experimental group were tutored in one-half hour sessions twice a week. The gain in mathematics achievement for the experimental group was shown to be significantly higher than that for the control group.[10]

The need for teachers to set and adhere to fair and just minimum academic standards for students to pass their course is an important find-

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[10]James Leonard Crandell, "An Economical Mathematics Tutorial Program and Its Effects Upon Mathematics Achievement and Attitude of Fifth Grade Students," Dissertation Abstracts, 36/02, p. 808A.

ing of the survey. The Nelson study tends to confirm this finding. In the study, high school principals claimed that one reason national test scores were declining was the introduction of elective courses in the schools of a non-quality nature, which, in many cases, replaced academic standards in the classroom with relevancy.[11] Teachers would probably be more inclined to set such standards if high school administrators would also strongly encourage and support their teachers in setting minimum academic standards in their classroom.

Declining classroom attendance seems to be another important area that is causing the decline in the mathematics achievement of high school students as seen by high school mathematics teachers in this survey. Researchers Harnischfeger and Wiley found that the pupil absent rate had continuously increased over the past decade. This trend probably affects student achievement in terms of smaller average amounts of schooling for students.[12] As a result, effective procedures should be sought and enforced by administrators, teachers, and parents that would guarantee the best daily classroom attendance for each student. An attempt to improve classroom attendance would probably be ineffective if, for example, only administrators worked on the problem. A solution of this problem would probably require the help and support of teachers and parents.

The need to place greater emphasis on computational skills in the early grades is clearly evident in the survey. Teachers of mathematics should see that such skills are taught and learned early. Trafton and

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[11]Nelson, op. cit., pp. 78-82

[12]Annegret Harnischfeger and David E. Wiley, "The Marrow of Achievement Test Score Declines," Educational Technology, Vol. 16, No. 6, June, 1976, pp. 5-14.

Suydam believe that skill in computation enables individuals to operate confidentally, capably, and flexibly in situations in which number ideas are involved and it builds a base for future learning of mathematical content.[13] Also, the teacher should not assume that computational skills were covered and learned in prior grades nor should he give up on a child's ability to learn such skills.

The last two recommendations deal with administrators. The high school principal and his assistants are responsible for giving leadership to the school staff throughout the school year. If a high priority is placed on the improvement and development of curricula and instruction, then the results of these efforts would probably be reflected in the classroom achievement of the students. On the other hand, if very little leadership is given by administrators in improving upon the quality of the curricula and instruction, student achievement would probably be adversely affected. One important reason why little leadership might be given to instructional and curricula matters was pointed out in the Nelson survey. In that study, high school principals said that the lack of proper supervision of the instructional program by administrators was caused by the vast amount of time spent by them on non-instructional problems, such as crime, discipline, etc.[14] It would seem that as a result of this survey high school administrators should set a high priority upon the improvement and development of curricula and instruction in their schools. Capable assistant principals and their assistants can help the principal with many

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[13]Paul R. Trafton and Marilyn N. Suydam, "Computational Skills: A Point of View," The Arithmetic Teacher, Vol. 22, No. 7, November, 1975, pp. 528-537.

[14]Nelson, op. cit., pp. 78-82.

of the non-instructional duties in the school. Ways of improving the quality of instruction may be by classroom visits of teachers periodically throughout the year and the hiring of qualified personnel. Curricula may be improved through the careful selection of text and materials that have developed a reputation among educators as being highly effective from which students can learn and teachers can teach.

The final recommendation has to do with the important area of school policy. School policy is usually defined in terms of objectives that can be carried out consistently throughout the school year. The relationship between school objectives and the national test decline was pointed out by Nelson. In this study, high school principals believed that a lack of clearly defined objectives in the school system was one reason for the national test decline.[15] Students and teachers are usually quick at detecting when any school policy has not been enforced or needs to be defined by the administration. This might cause teachers and particularly students to become lax in their work and study habits. This will ultimately affect students achievement. As a result, high school administrators should make school policy known to everyone concerned and then be consistent and accountable for enforcing the school policies they set forth to their students and expect their teachers, as well as parents, to carry out such policies.

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[15] Ibid.

Table I

Regional And National Weighted Frequency, Weighted N, And Percentage Of Teachers Responding No Decline

	Weighted Frequency	Weighted N	%
Northeastern	156	820	19
Southeastern	126	692	18
Central	241	859	28
Western	144	776	19
National	667	3,147	21

Table II

Questionnaire Statements

Students

1. are less likely to discipline themselves to study and to do their homework.
2. are less interested in learning mathematics.
3. are absent more frequently from class.
4. are less able to sit quietly and listen to the teacher.
5. are weaker in reading comprehension skills.
6. receive less encouragement from parents to do well in school.
7. are more disruptive and discourteous in school.
8. have more "fears" of doing mathematics.
9. enter high school with weaker mathematical backgrounds.
10. are less likely to receive positive influence from their peers to succeed in mathematics.

Teachers

11. are less likely to set minimum academic standards for students to pass their course.
12. are more likely to allow students to study topics of their own choosing.
13. are less inclined to discipline their students.
14. have less knowledge in the teaching methods of mathematics.
15. have less knowledge in the content area of mathematics.
16. are less likely to prepare their lessons as thoroughly.
17. are less skilled in motivating students.
18. are less able to adjust their instruction to meet individual needs of students.
19. place less emphasis on teaching basic computational skills.

Curricula

20. contain more material that is non-essential and less important to learning mathematics.
21. are less practical and less related to the life of the student.
22. are more likely to make explanations of problems unclear with too much formal language and abstract symbols.
23. place less emphasis on basic computational skills.
24. are less appealing and less interesting to students.
25. contain less review work of each lesson.
26. are less likely to meet the needs of students of various ability levels.
27. are less difficult and less challenging for students.
28. are more difficult for students to read and to comprehend.

Table II - Continued

Administration

29. are more restrictive to the amount of curricula and demonstration materials that can be purchased by teachers.
30. assign larger class sizes to teachers.
31 are less likely to be supportive of disciplinary actions taken by teachers.
32. are less likely to encourage teachers to set minimum academic standards in their classroom.
33. are less consistent in enforcing school policies.
34, are more likely to urge teachers to accept current trends and fads in mathematics education against their better judgment.
35. are more likely to cause teachers and students to become confused by suggesting frequent changes in the curricula.
36. seem to be more occupied with non-classroom related activities.
37. require teachers to do more non-classroom related paper work and activities.

Table III

Northeastern Weighted Adjusted Responses
By Category And By Total

Category			Total			
Statement		Weighted Frequency	Statement	Weighted Frequency	%1	%2
	Students					
1		632	1	632	95	77
9		511	9	511	77	62
3		460	3	460	69	56
5		450	5	450	68	55
10		281	36	393	59	48
7		270	19	356	54	43
6		268	31	342	52	42
2		246	33	337	51	41
4		142	11	336	51	41
8		50	23	329	50	40
	Teachers		22	311	47	38
			10	281	42	34
19		356	32	280	42	34
11		336	30	275	41	34
13		272	13	272	41	33
18		202	7	270	41	33
17		157	6	268	40	33
16		113	2	246	37	30
12		61	37	238	36	29
14		45	20	210	32	26
15		11	21	208	31	25
	Curricula		18	202	30	25
			26	198	30	24
23		329	28	188	28	23
22		311	25	167	25	20
20		210	17	157	24	19
21		208	4	142	21	17
26		198	16	113	17	14
28		188	29	106	16	13
25		167	34	99	15	12
24		54	12	61	9	7
27		36	24	54	8	7
	Administration		8	50	8	6
			14	45	7	5
36		393	27	36	5	4
31		342	35	21	3	3
33		337	15	14	2	2
32		280				
30		275				
37		238				
29		106				
34		99				
35		21				

%1 - Percentage of weighted adjusted responses in region indicating decline.

%2 - Percentage of total weighted adjusted responses in region.

Table IV

Southeastern Weighted Adjusted Responses
By Category And By Total

Category			Total			
Statement	Weighted Frequency		Statement	Weighted Frequency	%1	%2
Students						
1	536		1	536	95	77
9	472		9	472	83	68
5	387		5	387	68	56
7	264		11	376	66	54
3	262		32	340	60	49
10	252		23	329	58	48
6	234		13	284	50	41
2	222		37	282	50	41
4	185		19	280	49	40
8	107		22	277	49	40
Teachers			7	264	47	38
			3	262	46	38
11	376		36	258	46	37
13	284		10	252	45	36
19	280		6	234	41	34
18	167		30	224	40	32
16	159		2	222	39	32
17	116		21	212	37	31
15	75		25	203	36	29
14	68		20	202	36	29
12	41		31	186	33	27
Curricula			4	185	33	27
			28	179	32	26
23	329		33	176	31	25
22	277		18	167	30	24
21	212		16	159	28	23
25	203		29	124	22	18
20	202		17	116	20	17
28	179		26	112	20	16
26	112		8	107	19	15
24	97		35	101	18	15
27	61		34	100	18	14
Administration			24	97	17	14
			15	75	13	11
32	340		14	68	12	10
37	282		27	61	11	9
36	258		12	41	7	6
30	224					
31	186					
33	176					
29	124					
35	101					
34	100					

%1 - Percentage of weighted adjusted responses in region indicating decline.

%2 - Percentage of total weighted adjusted responses in region.

Table V

Central Weighted Adjusted Responses
By Category And By Total

Category			Total			
Statement	Weighted Frequency	Statement	Weighted Frequency	%1	%2
Students					
1	589	1	589	95	69
9	441	9	441	71	51
3	387	23	428	69	50
5	360	11	409	66	48
6	330	3	387	63	45
10	314	5	360	58	42
7	267	22	344	56	40
4	216	19	344	56	40
2	201	36	342	56	40
8	54	6	330	53	38
Teachers		32	328	53	38
		10	314	51	37
11	409	20	287	46	33
19	344	31	284	46	33
13	276	33	281	45	33
17	125	13	276	45	32
18	108	7	267	43	31
16	98	30	259	42	30
12	87	37	240	39	28
15	42	4	216	35	25
14	19	2	201	33	23
Curricula		34	201	33	23
		28	186	30	22
23	428	25	179	29	21
22	344	21	136	22	16
20	287	17	125	20	15
28	186	18	108	17	13
25	179	29	104	17	12
21	136	16	98	16	11
26	98	26	98	16	11
27	93	27	93	15	11
24	28	12	87	14	10
		8	54	9	6
		35	54	9	6
36	343	15	42	7	5
32	328	24	28	5	3
31	284	14	19	3	2
33	281				
30	259				
37	240				
34	201				
29	104				
35	54				

%1 - Percentage of weighted adjusted responses in region indicating decline.

%2 - Percentage of total weighted adjusted responses in region.

Table VI

Western Weighted Adjusted Responses
By Category And By Total

Category			Total			
Statement	Weighted Frequency		Statement	Weighted Frequency	%1	%2
Students						
1	605		1	605	96	78
9	526		9	526	83	68
5	418		11	433	69	56
3	351		5	418	66	54
2	314		3	351	56	45
7	292		19	351	56	45
6	279		32	350	55	45
10	243		33	348	55	45
4	192		36	344	54	44
8	83		23	341	54	44
Teachers			22	324	51	42
			2	314	50	40
11	433		31	312	49	40
19	351		20	294	47	38
13	282		30	294	47	38
17	101		7	292	46	38
16	86		13	282	45	36
18	80		6	279	44	36
12	73		28	260	41	34
14	64		37	246	39	32
15	57		10	243	38	31
Curricula			4	192	30	25
			21	164	26	21
23	341		25	163	26	21
22	324		26	144	23	19
20	294		34	116	18	15
28	260		24	104	16	13
21	164		17	101	16	13
25	163		29	93	15	12
26	144		16	86	14	11
24	104		8	83	13	11
27	52		18	80	13	10
Administration			12	73	12	9
			35	69	11	9
32	350		14	64	10	8
33	348		15	57	9	7
36	344		27	52	8	7
31	312					
30	294					
37	246					
34	116					
29	93					
35	69					

%1 - Percentage of weighted adjusted responses in region indicating decline.

%2 - Percentage of total weighted adjusted responses in region.

Table VII

United States Weighted Adjusted Responses
By Category And By Total

Category			Total			
Statement	Weighted Frequency	Statement	Weighted Frequency	%1	%2
Students					
1	2,362	1	2,362	95	75
9	1,950	9	1,950	79	62
5	1,615	5	1,615	65	51
3	1,460	11	1,554	63	49
6	1,111	3	1,460	59	46
7	1,093	23	1,427	58	45
10	1,090	36	1,338	54	43
2	983	19	1,331	54	42
4	735	32	1,298	52	41
8	294	22	1,256	51	40
Teachers		33	1,142	46	36
		31	1,124	45	36
11	1,554	13	1,114	45	35
19	1,331	6	1,111	45	35
13	1,114	7	1,093	44	35
18	557	10	1,090	44	35
17	499	30	1,052	42	33
16	456	37	1,006	41	32
12	262	20	993	40	32
14	196	2	983	40	31
15	188	28	813	33	26
Curricula		4	735	30	23
		21	720	29	23
23	1,427	25	712	29	23
22	1,256	18	557	22	18
20	993	26	552	22	18
28	813	34	516	21	16
21	720	17	499	20	16
25	712	16	456	18	14
26	552	29	427	17	14
24	283	8	294	12	9
27	242	24	283	11	9
Administration		12	262	11	8
		35	245	10	8
36	1,338	27	242	10	8
32	1,298	14	196	8	6
33	1,142	15	188	8	6
31	1,124				
30	1,052				
37	1,006				
34	516				
29	427				
35	245				

%1 – Percentage of weighted adjusted responses in region indicating decline.
%2 – Percentage of total weighted adjusted responses in region.

Table VIII

Average National and Regional Rankings

Statement	North-eastern	South-eastern	Central	Western	National
1	2.30	2.05	2.13	2.31	2.20
2	.30	.23	.28	.44	.31
3	1.19	.37	.97	.41	.76
4	.09	.11	.22	.13	.14
5	1.05	.81	.66	.82	.83
6	.41	.54	.80	.42	.55
7	.27	.33	.30	.32	.30
8	.00	.11	.04	.02	.04
9	1.60	1.57	.93	1.69	1.43
10	.25	.18	.29	.17	.22
11	.44	.62	.65	.67	.60
12	.03	.00	.00	.005	.009
13	.23	.14	.20	.05	.16
14	.01	.00	.01	.08	.03
15	.00	.11	.04	.11	.06
16	.12	.14	.04	.04	.08
17	.15	.15	.04	.05	.10
18	.30	.05	.02	.008	.10
19	.32	.55	.47	.52	.46
20	.09	.25	.15	.35	.20
21	.14	.20	.06	.03	.10
22	.16	.35	.27	.35	.28
23	.21	.50	.57	.41	.42
24	.05	.03	.006	.00	.02
25	.05	.05	.03	.07	.05
26	.20	.02	.03	.05	.08
27	.00	.03	.02	.005	.01
28	.006	.03	.04	.11	.05
29	.05	.10	.08	.06	.07
30	.48	.46	.32	.43	.42
31	.49	.13	.30	.26	.30
32	.35	.52	.30	.32	.36
33	.31	.09	.17	.18	.19
34	.04	.15	.21	.11	.13
35	.02	.09	.10	.11	.06
36	.15	.34	.19	.22	.22
37	.08	.29	.10	.23	.17